

ORIGINAL

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, D.C. 20554

In the Matter of

Amendment of Section 90.239 of  
the Commission's Rules to Adopt  
Permanent Regulations for  
Automatic Vehicle Monitoring  
Systems

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) PR Docket No. 93-61  
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TO: The Commission

OPPOSITION TO PETITIONS FOR RECONSIDERATION

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May 24, 1995

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## TABLE OF CONTENTS

Page No.

|   |            |
|---|------------|
| <b>SUMMARY OF OPPOSITION.....</b>   | <b>iii</b> |
| <b>I. <u>THE COMMISSION SHOULD DECLINE TO LIMIT THE DEFINITION OF NONMULTILATERATION SYSTEMS.</u> .....</b>   | <b>2</b>   |
| <b>A. THE DEFINITION OF NONMULTILATERATION SYSTEMS SHOULD NOT BE NARROWED TO ONLY TAG-READER SYSTEMS.....</b>   | <b>3</b>   |
| <b>B. NONMULTILATERATION SYSTEMS SHOULD NOT BE RESTRICTED TO OPERATING OVER A LIMITED CONTIGUOUS AREA.....</b>  | <b>5</b>   |
| <b>II. <u>THE COMMISSION SHOULD DENY SOME MISCELLANEOUS PROPOSALS FOR RECONSIDERATION SPECIFICALLY SEEKING TO ELEVATE SECONDARY USERS TO CO-PRIMARY STATUS WITH NONMULTILATERATION SYSTEMS.</u>.....</b>  | <b>8</b>   |
| <b>III. <u>THE COMMISSION SHOULD DECLINE TO MODIFY ITS RULING TO SHIFT THE BURDEN FROM SECONDARY USERS TO NONMULTILATERATION PROVIDERS TO RESOLVE INTERFERENCES.</u> .....</b>  | <b>9</b>   |
| <b>A. THE PROPOSED RULES ALREADY APPLY TO NONMULTILATERATION SYSTEMS BY ACKNOWLEDGING THAT THE TECHNICAL DIFFERENCES BETWEEN MULTILATERATION SYSTEMS AND NONMULTILATERATION SYSTEMS JUSTIFY LESS STRINGENT RESTRICTIONS ON NONMULTILATERATION SYSTEMS. ....</b> | <b>9</b>   |
| <b>B. ASKING THAT THE COMMISSION LICENSE ONLY ONE NONMULTILATERATION PROVIDER PER BANDWIDTH FOR EACH MTA IS ANTICOMPETITIVE AND AGAINST THE PUBLIC INTEREST. ....</b>   | <b>11</b>  |
| <b>C. MI/SCE HAVE PROVIDED NO EVIDENCE THAT NONMULTILATERATION SYSTEMS SHOULD BE SUBJECT TO THE PRESUMPTION AGAINST HARMFUL INTERFERENCE. ....</b>  | <b>12</b>  |
| <b>D. NONMULTILATERATION SYSTEMS SHOULD NOT BE SUBJECT TO TESTING REQUIREMENTS. ....</b>  | <b>16</b>  |
| <b>IV. <u>THE COMMISSION SHOULD DECLINE TO ALTER THE BANDWIDTH ALLOCATION PLAN TO FURTHER RESTRICT BANDWIDTH MADE AVAILABLE TO NONMULTILATERATION SYSTEMS.</u> .....</b>  | <b>19</b>  |
| <b>V. <u>TI ENCOURAGES THE COMMISSION TO ADOPT TI'S FREQUENCY TOLERANCE PROPOSAL OVER AMTECH'S</u></b>  |            |

|       |   |    |
|-------|---|----|
|       | <u>PROPOSAL OR IN COMBINATION WITH AMTECH'S<br/>PROPOSAL. ....</u>  | 20 |
| VI.   | <u>GIVEN THE BREADTH OF COMMENT AND DIVERSITY OF<br/>OPINION OVER GRANDFATHERING, THE COMMISSION<br/>SHOULD RECONSIDER WHETHER THE GRANDFATHERING<br/>PROVISIONS SHOULD BE MODIFIED. ....</u> | 20 |
| VII.  | <u>THE COMMISSION SHOULD RECONSIDER EQUIPMENT<br/>AUTHORIZATIONS IN AN EFFORT TO PROVIDE<br/>REASONABLE LIMITS. ....</u>  | 24 |
| VIII. | <u>THE COMMISSION SHOULD CLARIFY THAT<br/>NONMULTILATERATION LICENSEES ARE NOT REQUIRED<br/>TO OBTAIN A LICENSE FROM RAND MCNALLY. ....</u>   | 24 |
| IX.   | <u>CONCLUSION. ....</u>   | 25 |

## SUMMARY OF OPPOSITION

While Texas Instruments Incorporated ("TI") supports some recommendations made in the petitions for reconsideration and is neutral as to many that do not affect non-multilateration systems, TI will limit its summary to its primary points of opposition and support.

TI opposes the requests of the Part 15 Coalition and the Ad Hoc Gas Distribution Utilities Coalition to narrow the definition of nonmultilateration systems which would result in limiting the potential markets for nonmultilateration systems and imposing daunting burdens upon both nonmultilateration providers and the Federal Communication Commission (the "Commission").

TI opposes the request of Metricom, Inc. and Southern California Edison (collectively referred to as "MI/SCE") that rules 90.353, 90.361, and 90.357 apply "equally" to non-multilateration systems. The rules as drafted apply to nonmultilateration systems to the extent justified by the nature of nonmultilateration technology. To modify the rules as requested would result in conflicting provisions for nonmultilateration systems and applying the regulatory scheme in a method that is detrimental to the public interest in desiring more competitors and product offerings in nonmultilateration markets. At its essence, it appears that MI/SCE want the Commission to: (i) license only one nonmultilateration systems provider per authorized bandwidth for each MTA; (ii) make nonmultilateration systems demonstrate that their systems do not cause unacceptable levels of interference with Part 15 devices through actual field tests as a condition of receiving a license; and (iii) make nonmultilateration systems

subject to the presumption against harmful interference by a Part 15 device. Yet, MI/SCE have offered no tangible factual reason for its request. Nor have MI/SCE explained why the presumption should be adopted for all nonmultilateration systems, when its fear arises from only wideband emissions.

Unless the Commission decides that field testing and the presumption of non-interference should apply to nonmultilateration systems, TI opposes delaying the resolution of this proceeding and implementation of these rules for nonmultilateration systems to flesh out the "field testing" requirements for multilateration systems.<sup>1</sup> Should the Commission adopt MI/SCE's request, then TI joins in supporting several arguments raised by multilateration providers regarding both testing and the presumption of non-harmful interference and opposes several arguments raised by Part 15 users and manufacturers regarding testing and the presumption of non-harmful interference. However, TI would encourage the commission to adjust the grandfathering and equipment authorization provisions to account for the anticipated delay in considering these additional issues.

TI also opposes the attempt of the Part 15 users to rehash through different versions of the same arguments the same notion of making Part 15 users primary users in this spectrum, a proposition already rejected by the Commission.

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<sup>1</sup> However, should the Commission feel compelled to consider these issues in this proceeding and apply field testing requirements to nonmultilateration systems, then TI would ask the Commission to: (i) establish guidelines for what constitutes unacceptable interference with Part 15 devices; (ii) establish detail or minimum guidelines on field testing procedures; (iii) allow Part 15 manufacturers to have input into the design and implementation of testing; and (iv) make the testing plans subject to public comment and evaluation by the Office of Engineering and Technology.

The Commission need not delay this proceeding to establish rules for interference between Part 15 or amateur stations and nonmultilateration systems because the likelihood of interference is small. Because TI supports requiring conflicting Part 15 users to cease conflicting operations, TI would support rules providing for the steps that either a Part 15 user or an amateur station should undertake to resolve the conflict, including relocation or frequency adjustment.

#### Bandwidth and Spectrum Allocation

TI opposes the implication of Southwestern Bell Mobile Systems ("SWBM") that the 2 mHz shared bandwidth should be earmarked for exclusive multilateration use.<sup>2</sup>

#### Frequency Tolerance

TI agrees with Teletrac and Amtech that the frequency tolerance limit of .00025% should be relaxed, but recommends its proposal of a frequency tolerance limit of 50 ppm in lieu of or in combination with Amtech's request that the limitation apply only when the center frequency is more than 40 kHz from the center of the authorized bandwidth..

#### Grandfathering

TI opposes the recommendations: (i) that currently incompatible uses should not be grandfathered; (ii) that grandfathering should be restricted to

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<sup>2</sup> Further, TI would object to the extent that any party would have nonmultilateration systems license in 2 mHz blocks for a particular market as suggested by SWBM for multilateration systems.

constructed systems; and (iii) that grandfathered systems should have to show no interference with Part 15 devices and subject to the same presumption.<sup>3</sup>

#### Equipment Authorizations

TI supports Amtech's proposals to extend type-acceptance for equipment until 12 months after adoption of a final rule on reconsideration and should clarify that LMS systems can continue to use equipment deployed prior to the type-acceptance deadline provided not marketed after the deadline.

#### Rand McNally Licenses

Lastly, TI requests that the Commission clarify that since licenses for nonmultilateration systems are not based on MTA's, nonmultilateration systems are exempt from any requirement of obtaining a license from Rand McNally.

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<sup>3</sup> By contrast, TI supports the recommendations: (i) that grandfathered systems be permitted to continue to operate indefinitely in accordance with prior interim rules unless there is actual harmful interference; (ii) grandfathering should extend to pending applications; and (iii) should allow changes to the grandfathered systems, including emission changes.

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TO: The Commission

OPPOSITION TO PETITIONS FOR RECONSIDERATION

Pursuant to 47 C.F.R. §1.429(f) (1994), Texas Instruments Incorporated ("TI") files its Opposition To Petitions For Reconsideration. TI opposes portions of the petitions for reconsideration filed by: 1) Metricom, Inc. and Southern California Edison (collectively referred to as "MI/SCE"); 2) the Part 15 Coalition ("P15 Coalition"); 3) Southwestern Bell Mobile Systems ("SWBM"); 4) Amtech Corporation ("Amtech"); 5) Ad Hoc Gas Distribution Utilities Coalition ("Ad Hoc Gas"); 6) Connectivity for Learning Coalition ("Connectivity"); 7) Cellnet Data Systems, Inc. ("Cellnet"); 8) Pinpoint Communications, Inc. ("Pinpoint"); and 9) American Radio Relay League, Incorporated ("American"). In furtherance of its objection to the positions espoused by MI/SCE, should the Federal Communication Commission ("Commission") adopt their requests, then TI would be compelled to oppose additionally portions of the petition for reconsideration filed by the Utilities Telecommunications Council ("UTC").

Generally, TI's opposition is organized around topical areas rather than proponents. Accordingly, TI will first address the definition of



nonmultilateration systems and the relationship between Part 15 devices and nonmultilateration systems. Then TI will address its opposition to bandwidth allocations. Next, TI will address the proposed modifications to the frequency tolerance requirements for nonmultilateration systems and grandfathering provisions. TI supports the recommendations regarding equipment authorizations and would seek clarification on the issues raised by Rand McNally.

**I. THE COMMISSION SHOULD DECLINE TO LIMIT THE DEFINITION OF NONMULTILATERATION SYSTEMS.**

The Commission indicated its purpose in this rulemaking as furthering its "commitment to the continued integration of radio-based technologies into the nation's transportation infrastructure and [its] commitment to the development and implementation of the nation's intelligent transportation systems of the future"<sup>4</sup> while balancing the interests between multilateration systems, nonmultilateration systems, and secondary users. The Commission explained that it considered nonmultilateration systems "as systems that employ any technology other than multilateration technology to transmit information to and from vehicles."<sup>5</sup> The Commission was clear on its intent to avoid stifling competition and innovation:

...[W]e believe that developing a diversity of LMS services is important to promote competition and continued technological advances. Promoting alternative technologies will provide consumers choices of a variety of locating services, enabling them to address their individual communications needs.<sup>6</sup>

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<sup>4</sup> Report and Order issued February 6, 1995 ("Ruling"), p. 5.

<sup>5</sup> Ruling, p. 9.

<sup>6</sup> Ruling, p. 12.

To this end, the Commission stated: "...[W]e adopt a definitional framework that is flexible enough to accommodate all operational modes LMS is anticipated to evolve towards."<sup>7</sup> The P15 Coalition should not now be allowed to undermine the Commission's intent in fostering competition and further technological advances in LMS systems by limiting nonmultilateration systems.

**A. *The Definition of Nonmultilateration Systems Should Not Be Narrowed to Only Tag-Reader Systems.***

The P15 Coalition asks the Commission to narrow the definition of nonmultilateration technologies or systems because these systems will be operating in the center of the 902-928 MHz spectrum, an area "heavily used" by Part 15 technologies. These are facts and expectations already taken into account by the Commission. The purpose of a petition for reconsideration is to ask the Commission to reconsider its ruling due to some new set of facts or new argument evolved since the original comment period.<sup>8</sup> The P15 Coalition's Petition satisfies neither of these requirements.

The method that the Commission chose to balance the interests of secondary operations like Part 15 devices was to impose operational restrictions on nonmultilateration systems, precluding them from providing non-vehicular location services, restricting messaging and interconnection and prohibiting message and data transmission to fixed units and units not involving location and monitoring.<sup>9</sup> Specifically, the Commission believed that voice or non-voice transmission of status and instructional messages related to location and

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<sup>7</sup> Ruling, p. 9 [emphasis added].

<sup>8</sup> See 47 C.F.R. § 1.429(b).

<sup>9</sup> See Ruling, p. 14.

monitoring will be invaluable to the future of ITS.<sup>10</sup> Having chosen this framework for balancing competing interests, and given Part 15 users greater protection than they have ever previously received, the Commission should not succumb to overreaching requests designed to give secondary users co-primary status.

The P15 Coalition has failed to identify how the nature of the communication technology used by a nonmultilateration system will adversely impact Part 15 use of the spectrum since regardless of the type of communications, the technology used must still comply with the rules regarding frequency tolerance, ERP, emission masks, antenna height restrictions, interconnection and message content. The P15 Coalition suggests that the Commission not only limit the definition to tag reader systems but also require that such systems be operated within 50 meters of highway toll plazas or rail siding.<sup>11</sup> Contrary to the Commission's goals, this revision of the definition would destroy the market for nonmultilateration systems in other applications like parking facilities to monitor permissible incoming and outgoing vehicles. Yet, the P15 Coalition fails to provide any supporting evidence of how this type of nonmultilateration system if operating under the restrictions proposed by this rulemaking disrupts the balance that the Commission has chosen between the primary LMS system and the secondary Part 15 use of the 902-928 spectrum.

As an alternative, the P15 Coalition directs the Commission to limit the power of a nonmultilateration system to one watt so the systems will be no

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<sup>10</sup> See Ruling, p. 15.

<sup>11</sup> Petition for Reconsideration filed by The Part 15 Coalition, p. 18 ("P15 Coalition Petition").

stronger than Part 15 devices. The P15 Coalition's proposal is intended to destroy both the current and potential markets for nonmultilateration systems. The P15 Coalition specifically asks the Commission to "ensure that such systems do not become a substitute for LMS or other licensed services". Because nonmultilateration systems are LMS systems, TI can only surmise that the P15 Coalition meant to ask that the Commission so limit the power level of nonmultilateration systems to preclude them from being or becoming a competitive substitute for multilateration systems or Part 15 devices in the LMS arena. Part 15 devices are no longer strictly secondary to LMS devices. Part 15 devices are now afforded more protection than they ever previously had. It is not the charter of the Commission to preclude competition or competitors in the LMS arena. To the contrary, the Commission has asserted that its intent is to increase available alternatives to serve the public interest. For these reasons, the Commission's prior expansion of protection of Part 15 already granted to the detriment of all LMS systems should not now be taken to a gluttonous state.

***B. Nonmultilateration Systems Should Not Be Restricted To Operating Over A Limited Contiguous Area.***

TI opposes requiring that nonmultilateration systems be limited to operating over a limited, contiguous area.<sup>12</sup> This is essentially the same recommendation already proposed by Lockheed and rejected by the Commission.<sup>13</sup>

Accordingly, it is not the proper subject of a petition for reconsideration and should be denied.

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<sup>12</sup> Petition for Limited Reconsideration filed by Ad Hoc Gas Distribution Utilities Coalition, p. 8, n. 11 ("Ad Hoc Gas Petition").

<sup>13</sup> See Ruling, p. 36 ("...licensing based on a fixed mileage separation would limit re-use spectrum and thereby limit the potential uses of these systems").

Not all currently employed systems operate over a limited contiguous area. Moreover, imminently foreseeable applications of nonmultilateration technology would not do so. The future of nonmultilateration systems lies in a vision of public safety and convenience and efficiencies for individuals, private and public enterprises. Imagine the trip of Joe Consumer home from work. Because he has an I.D. tag in his car he is able to make sure that his car only opens the door and starts for him, not a car thief. He is able to gain access to his car merely by getting into a particular range of the vehicle and doesn't put himself at risk trying to search for his keys. As he heads out of his garage at work the gate automatically opens because it senses that he is an authorized person. As he gets onto the freeway, he can receive signals alerting him to congestion or danger ahead. He can pass through the toll plaza without delay. As he exits off to head home, he can fill up with gas because the pump senses that he has an account to be billed. As he turns into the entry gate of his neighborhood, the gate opens because it senses that he is authorized to enter. The garage door opens as his vehicle approaches and makes sure that the car is off before the garage door closes avoiding accidental carbon monoxide poisoning. All these things are possible with nonmultilateration technology. But the element of the system that is in the vehicle interacting with each transponder has operated at various times with different transponders that do not emit over one contiguous area. Accordingly, the effect of modifying the definition could make this vision unrealizable.

The proposed limit on the definition unnecessarily adds greater burden on users of nonmultilateration technology and the Commission. TI AVM systems

currently operate when a TIRIS card passes within a particular area covered by an antenna signal. To set up a toll system may require numerous "toll booths" at numerous "toll plazas" on a single segment of highway. The proposed restriction would require that each "toll booth" be classified as a separate system, requiring multiple licenses for a single toll plaza and exponentially increasing as you cover the entire segment of highway. Such an approach would result in an inefficient use of the Commission's resources by bogging down the Commission with unnecessary paperwork for which it has neither the staff nor the budget. As the Commission is facing challenge by groups within Congress to have its manpower reduced and budget constrained, adopting a proposal that amplifies these restraints seems contrary to the public interest.

The public needs the flexibility of keeping the definition of a system broad enough to cover more than one transponder. It would be a logistical nightmare for the Commission if each gas station had to obtain a license for each pump it has rather than being able to obtain a site based license. Moreover, the burden on the proposed user to obtain a vast number of licenses would necessarily make such systems unattractive and contract the market. Additionally, users need the flexibility of being able to license on a site basis so that frequency adjustments may be made to assure appropriate interoperability between the transponders within its proposed use. Without this assurance, the systems will be ineffective and suffer declined demand due to an artificial restraint on assuring quality.

**II. THE COMMISSION SHOULD DENY SOME MISCELLANEOUS PROPOSALS FOR RECONSIDERATION SPECIFICALLY SEEKING TO ELEVATE SECONDARY USERS TO CO-PRIMARY STATUS WITH NONMULTILATERATION SYSTEMS.**

The Commission need not and should not delay this proceeding further to establish rules for interference between Part 15 or amateur stations and nonmultilateration systems because the existing rules already provide for the results of interference.<sup>14</sup> Because the rules provide that Part 15 users and amateur stations are secondary to LMS systems and that they must cease operations if their operation causes harmful interference to nonmultilateration systems, no further rules are required.<sup>15</sup> TI would oppose rules providing for the steps that either a Part 15 user or an amateur station should undertake to resolve the conflict because such rules are unnecessary.<sup>16</sup> Currently, although required to cease operations that result in interference with nonmultilateration systems,<sup>17</sup> the absence of rules addressing how the interference may be resolved by the secondary user only serves to provide limitless options to the secondary users to resolve the interference. Limiting those options would hardly be reward to secondary users or justify further delay in this rulemaking. These requests are only thinly veiled requests for elevating secondary users to co-primary status, a proposition already rejected by this Commission.<sup>18</sup>

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<sup>14</sup> Petition for Partial Reconsideration filed by The American Radio Relay League, Incorporated, p. 5, n. 3 ("American Petition").

<sup>15</sup> See 47 C.F.R. § 15.5(c).

<sup>16</sup> See American Petition, p. 7.

<sup>17</sup> Ruling, p. 20 (citing 47 C.F.R. § 15.5(c)).

<sup>18</sup> See Ruling, p. 19-20.

**III. THE COMMISSION SHOULD DECLINE TO MODIFY ITS RULING TO SHIFT THE BURDEN FROM SECONDARY USERS TO NONMULTILATERATION PROVIDERS TO RESOLVE INTERFERENCES.**

The Commission announced its Ruling regarding Automatic Vehicle Monitoring Systems ("AVM Systems") after careful consideration of how multilateration systems and nonmultilateration systems are functionally and technologically different and proposed rules that while sensitive to the desires of Part 15 users and manufacturers do not over-regulate nonmultilateration systems by imposing multilateration restrictions on technology that does not pose the same threat of interference. MI/SCE now propose to alter the relationship between secondary users and nonmultilateration systems by limiting the number of nonmultilateration providers within the area serviced by a Part 15 device, requiring nonmultilateration providers to affirmatively develop and employ systems that do not cause "unacceptable levels of interference" with Part 15 devices and which must tolerate certain levels of interference from Part 15 devices as this Commission has chosen to do for multilateration systems.

**A. *The Proposed Rules Already Apply to Nonmultilateration Systems by Acknowledging That The Technical Differences Between Multilateration Systems and Nonmultilateration Systems Justify Less Stringent Restrictions on Nonmultilateration Systems.***

TI objects to MI/SCE's recommendation that rules 90.353, 90.361, and 90.357 should apply "equally" to non-multilateration systems.<sup>19</sup> As phrased, MI/SCE's request is unintelligible because it asks the Commission to apply conflicting provisions to nonmultilateration systems and to apply the regulatory

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<sup>19</sup> Petition for Reconsideration and Clarification of Metricom, Inc. and Southern California Edison Company, pp. 17-18 ("MI/SCE Petition").



scheme in a method that is detrimental to the public's interest in wanting more competitors in nonmultilateration markets. MI/SCE say that rules 90.361 and 90.357 do not include nonmultilateration systems and that most of rule 90.353 does not include multilateration systems. MI/SCE are wrong.

Part 90.357 applies to nonmultilateration systems. Part 90.357 is the band allocation plan which specifically discusses in subpart (b) that sub-bands available to nonmultilateration systems and note 2 of subpart (a) describes the sharing of band 919.750-921.750. The 30 watt ERP mentioned in note 1 of subpart (a) also applies to non-multilateration systems when you read 90.205(b). Part 90.357(b) imposes a restriction on nonmultilateration systems of only requesting as much bandwidth as is necessary to meet its operational needs, a restriction not on multilateration systems.

Part 90.361 does include nonmultilateration systems since it indicates that for all LMS systems Part 15 and amateur radio operations are not to cause harmful interference to nonmultilateration systems. What rule 90.361 does not do is grant a presumption that interference will not be harmful to non-multilateration systems if the Part 15 and amateur operations meet the specified criteria.

All sections of the proposed Part 90.353, except subparts (a)(6)-(7), apply to nonmultilateration systems. Part 90.353 subparts (a)(1)-(3) specifically apply to both types of LMS systems. Subparts 90.353(a)(4)-(5) are directed toward multilateration systems, but also address nonmultilateration systems. Part 90.353(a)(8) is directed to nonmultilateration systems but also addresses multilateration systems.

Subparts 90.353(a)(6)-(7) apply only to multilateration systems. However, modifying these subparts to apply to nonmultilateration systems would result in conflicting provisions. Part 90.353(a)(7) allows multilateration LMS systems whose primary operations involve providing vehicle location services to provide non-vehicular location services in direct contrast to 90.353(a)(8) which prohibits nonmultilateration systems from providing non-vehicular location services. MI/SCE do not suggest how this direct conflict is to be resolved, suggesting that MI/SCE did not analyze the specifics of their request. Similarly, Part 90.353(6) simply authorizes use of both the 919.75-921.75 and 921.75-927.75 bands by a single system within a given MTA. Since non-multilateration systems are not authorized to use the 921.75-927.75 bandwidth, making this rule applicable for both systems would conflict with and destroy the bandwidth allocation scheme.

After you sort through the items that just don't make sense, at its essence, it appears that MI/SCE want the Commission to: (i) license only one nonmultilateration system provider per authorized bandwidth for each MTA; (ii) make nonmultilateration systems demonstrate that their systems do not cause unacceptable levels of interference with Part 15 devices through actual field tests as a condition of receiving a license; and (iii) make nonmultilateration systems subject to the presumption against harmful interference by a Part 15 device if the Part 15 device is operating within the specified parameters.

***B. Asking That The Commission License Only One Nonmultilateration Provider Per Bandwidth for Each MTA Is Anticompetitive and Against The Public Interest.***

TI opposes item (i) because it would result in artificially restricting both the markets and the competitors in those markets without justification. MTA's

are large regional areas. Allowing a nonmultilateration system manufacturer to seek a license for an entire MTA for a system that only requires hundreds of yards of area would allow that provider to become the monopolistic provider for an entire MTA. This result would be directly contrary to the intent of the Commission in expanding markets and competitors in the markets. The request is also directly contrary to the limitation on nonmultilateration systems under 90.357(b), n.1 that nonmultilateration providers seek to license only that amount of bandwidth needed to meet its operational goals. Consequently, the request for reconsideration should be denied.

***C. M/SCE Have Provided No Evidence That Nonmultilateration Systems Should Be Subject to The Presumption Against Harmful Interference.***

TI opposes making nonmultilateration systems subject to the presumption against harmful interference by a Part 15 device provided that the Part 15 device is operating within the specified presumption parameters. Moreover, TI opposes modifying the relationship between secondary users and nonmultilateration providers such: (i) that Part 15 devices are considered co-primary to LMS services;<sup>20</sup> (ii) that LMS providers should bear the onus of fixing interference with Part 15 devices;<sup>21</sup> and (iii) that Part 15 users be provided a mechanism for complaining and seeking relief.<sup>22</sup> Additionally, TI opposes extending the current presumption against harmful interference by: (i) eliminating all height and power restrictions to qualify for the presumption;<sup>23</sup> (ii)

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<sup>20</sup> Petition for Reconsideration and Clarification filed by Cellnet Data Systems, Inc., p. 3 ("Cellnet Petition").

<sup>21</sup> Cellnet Petition, p. 8.

<sup>22</sup> Cellnet Petition, p. 8.

<sup>23</sup> P15 Coalition Petition, p. 13.

increasing the qualifying antennae height up to 15 meters;<sup>24</sup> (iii) modifying the definition of final links to include all Part 15 devices which are available to carry communications for entities eligible under subparts B or C of Part 90;<sup>25</sup> and (iv) adding mobile and portable Part 15 devices to the exemption.<sup>26</sup>

The Commission chose not to require that nonmultilateration systems be subject to the presumption against no harmful interference. The Commission indicated that it adopted the presumption only because of the concerns raised by Part 15 users as to "their secondary status in light of multilateration LMS".<sup>27</sup> MI/SCE have offered no tangible reason for extending the presumption to nonmultilateration systems. In fact, MI/SCE indicate that they anticipate that Part 15 devices will interfere with only wideband nonmultilateration systems.<sup>28</sup> Yet, MI/SCE ask that the presumption be extended to all nonmultilateration systems.

MI/SCE have offered no support for their "fear" that nonmultilateration systems "will have the same problems sharing the 902-928 MHz band that their multilateration cousins do".<sup>29</sup> To the contrary, MI/SCE suggest merely that there is no reason not to extend the presumption. The Commission indicated that it

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<sup>24</sup> Petition for Reconsideration filed by Utilities Telecommunications Council, p. 16 ("UTC Petition"); MI/SCE Petition, p. 5; Petition for Reconsideration of the Connectivity for Learning Coalition, p. 6 ("Connectivity Petition"). TI would note that MI/SCE incorrectly asserts that the Commission's rules place height and power restrictions on Part 15 devices and that such restrictions should be removed. Since the premise is incorrect, the Ruling only qualifies when Part 15 devices may take advantage of the presumption of no harmful interference, TI need not opine on it. However, TI would oppose extending the presumption of non-interference, particularly in a limitless fashion.

<sup>25</sup> MI/SCE Petition, pp. 10-11.

<sup>26</sup> MI/SCE Petition, p. 12.

<sup>27</sup> Ruling, p. 21.

<sup>28</sup> MI/SCE Petition, p. 17.

<sup>29</sup> MI/SCE Petition, p. 17.

justified creating the presumption because the types of systems described in the criteria for the presumption were not the types of systems about which complaints regarding interference were being made.<sup>30</sup> Yet, by contrast, MI/SCE indicate that nonmultilateration systems will receive interference from "the extraordinary number of Part 15 devices operating in the band".<sup>31</sup> If anything, this suggests that the Commission not adopt the presumption for nonmultilateration systems.

Moreover, because individual elements of nonmultilateration systems operate over a relatively small area, it may be unfeasible to move or modify the system to accommodate the Part 15 interference. For example, if a parking lot system is put in place where there is only one entrance and one exit, the nonmultilateration system will have no choice but to place its reader at that location and set up the width of emission to cover traffic coming from an entire 360 degree radius. If a Part 15 device is on a nearby utility pole causing interference, then, in addition to being able to modify frequency, the choices, absent the presumption, include moving the Part 15 device to the next utility pole, moving the utility pole, or moving the transmitter lower on the pole. The nonmultilateration system does not have the luxury of such flexibility. With the presumption in place, the customer for the nonmultilateration system loses. The same scenario is easily envisioned in the toll booth situation. Customers are going to want the nonmultilateration systems added to the current toll booth locations rather than to construct or move existing plazas so that a utility company doesn't have to move either a utility pole or move its transmitter to the

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<sup>30</sup> Ruling, p. 21, n. 85.

<sup>31</sup> MI/SCE Petition, p. 17.

next utility pole down the line. Because nonmultilateration systems face more stringent physical limitations than multilateration systems and because MI/SCE have offered no reason to extend the presumption to nonmultilateration systems when they expect that Part 15 devices will cause substantial interference to these systems, nonmultilateration systems should not be subject to the presumption against harmful interference.

Shifting the burden of modification to nonmultilateration systems, eliminating the height and power restrictions in the presumption criteria, and providing Part 15 users with a mechanism for complaining about interference to their operations and seeking relief from that interference are simply alternative methods of asking the Commission to give Part 15 devices primary status and relegating nonmultilateration systems to secondary status. Whether you artfully call it a request for "co-primary" status or not, this request to alter the relative priorities of users in the spectrum has already made in this proceeding and rejected by the Commission.<sup>32</sup> There is no new set of facts or new arguments here that was not available during the prior comment period. Accordingly, Part 15 users have justified no basis for reconsideration.

The presumption was carefully crafted to provide only a limited area of protection so as not to upset the primary/secondary user relationship. Allowing the proposed extensions of the presumption would nullify the Commission's decision to keep Part 15 devices and amateur operations as secondary users, particularly any extension to mobile and portable devices and such a broad definition as "available to carry communications" for entities eligible under

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<sup>32</sup> Ruling, p. 20.

subparts B or C of Part 90. Should the Commission opt to apply the presumption to nonmultilateration systems and to reconsider the parameters for qualifying for the presumption, then TI would merely advise that the Commission proceed cautiously taking into account the specific needs of nonmultilateration systems and the relative ability of each type of provider to make adjustments to their systems and the relative costs to be born by the public for making these adjustments.

However, were the Commission to accommodate Part 15 users further by extending the presumption to nonmultilateration systems, then TI would support: (i) making the presumption rebuttable;<sup>33</sup> (ii) placing the burden on Part 15 users to show no interference once the presumption is rebutted;<sup>34</sup> (iii) requiring a conflicting Part 15 use to cease operations;<sup>35</sup> (iv) defining the term "outdoor antenna";<sup>36</sup> and (vi) clarifying whether long range video links are included in Part 15 devices that are not automatically protected.<sup>37</sup>

***D. Nonmultilateration Systems Should Not Be Subject to Testing Requirements.***

TI opposes making nonmultilateration systems demonstrate that their systems do not cause unacceptable levels of interference with Part 15 devices through actual field tests as a condition of receiving a license along with the following propositions: (i) that no revenue service be allowed before testing is

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<sup>33</sup> Petition for Reconsideration filed by Southwestern Bell Mobile Systems, p. 9 ("SWBM Petition"); Petition for Reconsideration filed by MobileVision, L.P., p. 13 ("MobileVision Petition").

<sup>34</sup> SWBM Petition, p. 7; Petition for Reconsideration of Pinpoint Communications, Inc., p. 22 ("Pinpoint Petition"), p. 23.

<sup>35</sup> SWBM Petition, p. 9.

<sup>36</sup> MI/SCE Petition, p. 12.

<sup>37</sup> Petition for Partial Reconsideration and Clarification filed by AirTouch Teletrac, p. 8 ("Teletrac Petition").

complete;<sup>38</sup> (ii) that LMS systems be restricted to only operating as tested and approved;<sup>39</sup> and (iii) that LMS systems should not be allowed to make modifications during the testing process without retesting.<sup>40</sup>

Requiring testing of nonmultilateration systems does not make sense for many reasons. First, as the Commission has already acknowledged, nonmultilateration systems do not pose the same threat of interference that multilateration systems pose. Second, the Commission would have to exorbitantly increase its staff and budget to accommodate testing of nonmultilateration systems. Since nonmultilateration systems are deployed such that they may only expand for an area of yards, it is reasonable to expect that the Commission will be deluged with requests for licenses. Processing the paperwork is one issue. Devoting manpower to monitoring testing is altogether different by an order of magnitude. Unlike multilateration systems where the Commission can readily predict the number of tests and the timing of tests, and the Commission's degree of involvement in testing the equipment of each MTA-based licensee, predicting the manpower and time required for testing each nonmultilateration system deployed across the U.S. is not so easy.

UTC asserts without reason or explanation: (i) that no revenue service be allowed before testing is complete;<sup>41</sup> (ii) that LMS systems be restricted to only operating as tested and approved;<sup>42</sup> and (iii) that LMS systems should not be allowed to make modifications during the testing process without retesting.<sup>43</sup>

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<sup>38</sup> UTC Petition, p. 12.

<sup>39</sup> UTC Petition, p. 12.

<sup>40</sup> UTC Petition, p. 12.

<sup>41</sup> UTC Petition, p. 12.

<sup>42</sup> UTC Petition, p. 12.

<sup>43</sup> UTC Petition, p. 12.



These issues should be analyzed as part of a separate proceeding on establishing the testing procedures. The industries utilizing nonmultilateration technology have devoted substantial resources and promulgated jobs with the expectation that the technology will be rapidly deployed and continue to advance. The continued delay in adoption of final rules is frustrating all players in the market, not the least of which are the customers. They cannot tolerate further delays. The arguments raised regarding testing should not impede the conclusion of this rulemaking proceeding.

Because no support has been offered for consideration of these issues in this proceeding, TI opposes consideration of these issues and the further delay caused by these issues. However, should testing requirements be adopted despite TI's opposition, and development of the testing criteria, etc. be considered as issues for this proceeding, then TI would ask the Commission to:

(i) establish guidelines for what constitutes unacceptable interference with Part 15 devices;<sup>44</sup> (ii) establish detail or minimum guidelines on field testing (including procedures that will render the test reasonably uniform and cover a reliable sample of Part 15 technologies);<sup>45</sup> (iii) allow Part 15 manufacturers to have input into the design and implementation of testing (whether through the P15 Coalition or otherwise);<sup>46</sup> and (iv) make the testing plans subject to public comment and evaluation by the Office of Engineering and Technology.<sup>47</sup>

Although most of these requests were made by the Part 15 community, TI agrees

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<sup>44</sup> UTC Petition, p. 11; MI/SCE Petition, pp. 8-10; Cellnet Petition, p. 7; P15 Coalition Petition, p. 15.

<sup>45</sup> P15 Coalition Petition, p. 15-16; SWBM Petition, p. 8; Pinpoint Petition, p. 22.

<sup>46</sup> UTC Petition, p. 12; P15 Coalition Petition, p. 15-16.

<sup>47</sup> Ad Hoc Gas Petition, p. 19.